

BioForest-03.US

Schedule A

SN 10/783, 003

to the Response of November 28, 2005 in S.N. 10/783,033

In response to the office action of August 26, 2005, please amend the claims to read as follows.

Claims 1-20 (Canceled)

21. (Currently amended) A dispensing apparatus for dispensing a fluid into an object such as a tree, the dispensing apparatus comprising:

- a) a canister for containing an injection fluid, the canister having an interior cavity with inside cylindrical walls and an output port communicating with the interior cavity;
- b) a partition within the interior cavity dividing such interior cavity into a first subchamber communicating with the output port and a second subchamber on the side of the partition opposite such output port, the partition being a movable partition which is positioned within the interior cavity for sliding displacement therein and having a sealing fit against the inside walls of the interior cavity;
- c) a valve/closure disposed at the output port for permitting the release of fluid contained within the first subchamber;
- d) spring means for applying a force on the movable partition disposed within the second subchamber, the spring means being seated on the canister and being oriented to apply a force on the moveable partition, biasing the partition for displacement towards the valve/closure; and
- e) a nozzle having a bore extending there through, the nozzle being shaped at a first end for communication with the output port and being shaped at its other,

second end for connection with the object into which fluid is to be injected,

wherein, upon connection of the nozzle at the output port, a flow path is available from the first subchamber through the valve/closure to permit fluid, expressed from the first subchamber by displacement of the partition in response to the force applied by the spring means, to pass through the bore of the nozzle, thereby dispensing the fluid from the dispensing apparatus,

and wherein

- i) the valve/closure comprises a self-sealing penetratable plug;
- ii) the nozzle comprises a needle having a needle bore, the needle being positioned for insertion through the plug for permitting a flow of fluid through the needle, and
- iii) the needle has a needle tip for penetrating the penetratable plug and said the needle tip is positioned within a recess in the nozzle whereby the needle tip does not extend beyond the end of the nozzle.

22 (Canceled)

23 (Previously Presented) A dispensing apparatus as defined in Claim 22 wherein the spring means comprises a pressurized gas that is hermetically contained within the second subchamber.

24. (Previously Presented) A dispensing apparatus as defined in Claim 22 wherein the spring means comprises a mechanical spring.

25. (Previously Presented) A dispensing apparatus as defined in Claim 24 wherein the spring means comprises a plurality of nested helical springs.

26. (Previously Presented) A dispensing apparatus as defined in ~~any one of~~ Claim 25 wherein the maximum extension of said springs within the second subchamber is less than 70% of their maximum potential expansion.

27. (Previously Presented) A dispensing apparatus as defined in Claim 26 wherein the maximum extension of said springs within the second subchamber is less than 30% of their maximum potential expansion.

28. (Previously Presented) A dispensing apparatus as in Claim 25 wherein the nested springs each have an individual diameter and the diameter of each nested spring is progressively smaller proceeding inwardly within the second subchamber.

29. (Previously Presented) A dispensing apparatus as in Claim 28 wherein said nested springs are seated within the canister to permit their expansion without interference arising between adjacent springs.

30. (Previously Presented) A dispensing apparatus as in Claim 21 wherein the second end of the nozzle is tapered for insertion into a hole formed in the outside surface of a tree to provide a jam-fit therein.

31. (Previously Presented) A dispensing apparatus as in Claim 22 wherein the canister has a tapered seat for receiving the self-sealing penetratable plug and such

self-sealing penetratable plug has a tapered exterior that is complementary to the shape of said tapered seat.

32. (Canceled)

33. (Previously Presented) A dispensing apparatus as in Claim 21 wherein the canister has a top end surrounding the output port and an opposite, bottom, end and said top and bottom ends being of a complementary shape permitting consecutive canisters to be fitted into each other for stacking.

34. (Previously Presented) A dispensing apparatus as in Claim 22 wherein said valve-closure is composed of styrene butadiene.

35. (Withdrawn) A dispensing apparatus as in Claim 21 in combination with a refill nozzle having a bore extending there through, the nozzle being shaped at a first end for communication with the output port and being shaped at its other, second end for connection to a source of pressurized fluid to be inserted into said canister,

wherein, upon connection of the refill nozzle to the canister at the output port, a flow path is available through said refill nozzle to permit fluid, supplied by said source of pressurized fluid, to pass through the bore of the nozzle and through the valve/closure into the first subchamber of the canister.

36. (Withdrawn) A dispensing apparatus as in Claim 35 wherein said refill nozzle

comprises a spring-biased valve means which is actuated to open upon connection of the refill nozzle to the canister, said spring-biased valve means being biased for closure prior to connection of the refill nozzle to the canister.

37. (Withdrawn) A dispensing apparatus as in claim 36 comprising holding means for holding the refilling nozzle and canister in a mated state.

38. (Currently amended) A dispensing apparatus as in ~~claim 21~~ any one of Claims 21, 23, 24, 25, 26, 27, 28, 29, 30, 31, 33, and 34 wherein the object into which fluid is to be dispensed is a tree having bark, said in dispensing apparatus being in combination with said tree, said tree having a hole formed in the bark thereof, and wherein the second end of the nozzle is tapered for insertion into the hole formed in the bark of the tree to provide a jam-fit therein.

39. (Canceled)

40. (Withdrawn) A method for injecting a fluid into a tree comprising the steps of:

- a) determining an injection depth of a fluid in a tree;
 - b) drilling a hole in the tree, the hole having a hole depth, the hole depth being no shallower than the injection depth;
 - c) providing a dispensing apparatus as in Claim 39 21, said apparatus including the nozzle;
 - d) inserting the nozzle in the hole;
 - e) mating the canister to the nozzle,
- to thereby allow fluid from the canister to flow through the nozzle into the tree.